Fermilab

Computing

Project Close-Out Report

Teamcenter v11 Upgrade

Version 1.1

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DocDB #5878

PREPARED BY:

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CONCURRENCES:

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<Official copy is maintained electronically – printed copy may be obsolete>

Project Close-out Report Revision Log

Revision	Description	Effective Date

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1. Project Abstract

This project was undertaken allow us to receive continued vendor support for Teamcenter and NX. We had been running version 9 beyond the nominal end of its support by Siemens. We bypassed version 10 and upgraded directly to version 11. In addition, this allowed us to use Microsoft Office 2016 with Teamcenter integration instead of the older version of Microsoft Office that was the latest one compatible with version 9. The previous upgrade had also skipped a version, going from 7 to 9. Experience from that upgrade informed this one.

As before, the “power user” engineering supervisors were important to the project. They created some of the documentation for users, including multimedia materials, and led the user acceptance testing.

The upgrade also allowed engineering workstations to run newer versions of Java (version 8 and above) and stay synchronized with other lab-wide enterprise services. Around the end of this project, An end to Oracle’s free run-time environment updates came into effect and new arrangements became necessary for all enterprise uses of Java at the lab.

2. Project Documentation

Project management documents are in the Computing Sector DocDB entry #5878. Other project artifacts are in the Fermipoint project area.

3. Supporting Documentation

New teamcenter documentation and training materials were produced during execution of this project. It is mainly stored in Fermipoint but links to it are organized on the Wordpress site teamcenter.fnal.gov. New instructions have been given to the Service Desk for handling Teamcenter tickets.

4. Reason for Closing the Project

The projected completed its scope.

5. Project Deliverables

The project delivered deployed new versions of Teamcenter, TCViz, and NX with revised and improved versions of the workflows, queries and reports. The BMIDE configuration and the electronix signoff and material attribute customizations were updated. Associated software updates and upgrades included Java, AutoCAD, the integrations with Office and AutoCAD, and the operating system on the Citrix virtual machines.

All the server hardware was upgraded and virtualized, and redundant WebLogic pool managers were added. The databases were moved to new VMs and all server backup processes were updated.

Information for users was moved to WordPress and new v11 material from Siemens' Learning Advantage training library were made available. Over 100 new videos were created to show Fermilab-specific processes and features.

6. Project Schedule

This project suffered far more than the usual delays, which are discussed at greater length in the Lessons Learned document.

Project execution began in January, 2017. A preliminary forecast for completion was August of that same year, with a caveat that it was subject to resource allocations not yet committed. The revised completion estimate was October, 2017. The actual go-live date was a year later than that.

7. Project Team

The technical lead was Tony Metz, group leader of the Enterprise Engineering Applications group; group members Tom Porter and David Lowell; Line management Jerry Guglielmo; engineering supervisors Jodi Coghill, Tony Parker, and John Rauch; BA Roger Slisz; and BRM Irene Shiu.

8. Budget and Financial Information

The Enterprise Engineering Applications group reports all time to a single activity code so it is not possible to assess the SWF spent on this project.

In addition to the funds displayed below, $10,345 was spent to buy 13 months of access to Siemens' "Learning Advantage" library of training materials.

Materials & Services Obligations	Obligations ($)	Actual ($)	% Spent
Purchase Order 632898	$59,953.20	$53,933.40	90.0%
Purchase Order 637235	85,368.00	82,485.43	96.6%
Total	**$145,321.20**	**$136,418.83**	**93.9%**

9. Outstanding Risks

There remains a resource risk in the operational phase. It was already present before this upgrade, and is worse now with the loss of one employee. Operational support is stretched thinly, and another upgrade looms in the near future.

Teamcenter version 12 was released last summer, so another upgrade will be in order in the near future. It would be very risky to undertake that project without additional staff.

10. Operations and Support

We have experienced a reduction in the rate of operational support tickets. The workflows in version 11 are more reliable, and the former most common problem, generation of PDF files, now runs smoothly.

11. Next Steps

Legacy XDCS data remains to be imported. CCD's position is that this is the responsibility of the engineers.

12. Lessons Learned

See the *Teamcenter v11 Upgrade* lessons learned document in CS DocDB #5878. The following items are duplicated here for prominence.

- The EEA group is understaffed according to Siemens' recommendations and other labs staffing levels. This situation was exacerbated by one major and one minor medical issue.
- We relied on the customer divisions to do testing and create training materials. Their accounting practices made it difficult for them to devote the needed time to those tasks.
- A planned power outage affecting all of the Industrial area was scheduled on short notice. It caused hundreds of target workstations to be offline during the go-live.